

## II. Remarks

Reconsideration and allowance of the subject application are respectfully requested.

Claims 1-13 and 15-28 are pending in the application. Claims 1, 8, 15, 16, 19, 20, and 25 are independent.

The undersigned and the Applicant would like to thank Examiners Huang and Le for the cordial and productive interview of February 7, 2007. The Examiners' helpful comments and suggestions were instrumental in preparing this response.

As recommended by the Examiners at the interview, all independent claims have been amended to clarify what is meant by a "foldback incident". These amendments are clearly supported in the specification, *inter alia*, in the specification paragraphs quoted below. Note that these claim amendments were made for purposes of clarity with respect to the specification and drawings, and not in response to any statutory requirement for patentability.

Claims 1-25 were rejected as being unpatentable over Hall and Knuutila, for the reasons discussed on pages 2-9 of the Office Action. As discussed at the interview, Applicant respectfully traverses all art rejections.

As also discussed at the interview, each of the independent claims recites a novel combination of structure and/or function whereby, *inter alia*, a foldback event message

is transmitted from the subscriber station and/or received by the base station. There is no such foldback message in Hall (or in any of the other cited art). It appears that the Examiner has erroneously equated the claimed foldback message with references in Hall to messages sent to the base station indicating "communication mode quality". Communication mode quality is defined in Hall as the excess of power margin over power margin requirement for the current communication mode (see Figs. 3 and 4; and Col. 7, lines 6-39).

As also discussed at the interview, it is difficult to see how this relates to incidents of foldback. In particular, according to the present invention, a foldback incident occurs when the foldback circuit operates to limit uplink transmit power (when  $P_{current}$  tries to exceed  $P_{max}$ ). On the other hand there is no such circuit in Hall. Rather, Hall merely determines "quality" by subtracting the predetermined power margin requirement from the actual power margin ( $P_{max} - P_{current}$ ). There is no disclosure in Hall of any circuit that operates to limit uplink transmit power or any message which is generated and/or received upon such operation of such a circuit. See paragraphs [0035], [0038], and [0047] of the subject published application:

[0035] Referring now to Figure 4, an example of a subscriber station 28 is shown in greater detail. Subscriber station 28 comprises an antenna 60, or antennas, for receiving and transmitting

radio-communications over communication communications link 32. Antenna 60 is connected to a radio 64 and a modem 68, which in turn is connected to a microprocessor-assembly 72. Radio 64 includes a power amplifier 76, operable to provide the desired uplink transmit power. Power amplifier 76 includes foldback circuitry 80 that monitors a current in power amplifier 76 indicative of the actual uplink transmit power provided to antenna 60, referred to hereinafter as the "monitored current". Foldback circuitry 80 operates to limit the monitored current to prevent power amplifier 76 from being driven over specification and/or outside regulatory limits. When foldback circuitry 80 operates to limit the monitored current, power amplifier 76 is referred to as being in a foldback condition. A foldback condition indicates that subscriber station 28 is at its maximum uplink transmit power and, as such, has no available uplink transmit power.

[0038] In contrast to the prior art, in the present invention, as part of its regular operations, each subscriber station 28 tracks incidents of foldback to provide a more accurate estimate to base station 24. Referring now to Figure 5, each subscriber station 28 maintains a foldback record 100, which is stored on microprocessor-assembly 72. Each time foldback occurs foldback record 100 is updated. The information stored in foldback record 100 is not particularly limited and can include foldback information such as the number of consecutive frames in which foldback has occurred or the percentage of frames over a period of time in which foldback has occurred or both. Other foldback-related information that may be usefully stored in foldback record 100 will occur to those of skill in the art.

[0047] Another message transmitted from subscriber station 28 to base

station 24 is a foldback event message 120. As described earlier, subscriber stations 28 track when power amplifier 76 is in a foldback condition. When the foldback value or values stored in foldback record 108 reach a predetermined threshold, a foldback event message 120 reporting an incident of foldback is transmitted to base station 24. This predetermined threshold can be adjusted by a network operator to account for different local network conditions and for different types of foldback. For example, a foldback event message 120 could be sent when foldback record 108 holds a value indicating that 25 or more consecutive frames have been subject to foldback. Another example would be if foldback record 108 holds a value indicating that at least 10% of all frames transmitted over a predefined period of time have been subject to foldback.

In fact, there is no reference to foldback in Hall. Nor is there any mention in Hall of sending any messages from the subscriber station to the base station indicating that the amplifier's power has been limited by any foldback circuit.

Accordingly, the salient claimed features of the present invention are nowhere disclosed by the cited art, whether that art is taken individually or in combination.

In view of the above, it is believed that this application is now in condition for allowance, and a Notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3507. All correspondence should be directed to our address given below.

Respectfully submitted,

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